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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/678,414	10/02/2000	David W. Carlson	NSC1-H1700 [P04797]	4381

33402 7590 10/23/2002

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EXAMINER
KEBEDE, BROOK

ART UNIT	PAPER NUMBER
2823	

DATE MAILED: 10/23/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

Advisory Action	Application No.	Applicant(s)	
	09/678,414	CARLSON, DAVID W.	
	Examiner	Art Unit	
	Brook Kebede	2823	

--Th MAILING DATE of this communication appears on the cover sheet with the correspond nce address --

THE REPLY FILED 13 August 2002 FAILS TO PLACE THIS APPLICATION IN CONDITION FOR ALLOWANCE. Therefore, further action by the applicant is required to avoid abandonment of this application. A proper reply to a final rejection under 37 CFR 1.113 may only be either: (1) a timely filed amendment which places the application in condition for allowance; (2) a timely filed Notice of Appeal (with appeal fee); or (3) a timely filed Request for Continued Examination (RCE) in compliance with 37 CFR 1.114.

PERIOD FOR REPLY [check either a) or b)]

a) ☒ The period for reply expires 3 months from the mailing date of the final rejection.

b) ☐ The period for reply expires on: (1) the mailing date of this Advisory Action, or (2) the date set forth in the final rejection, whichever is later. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of the final rejection.
ONLY CHECK THIS BOX WHEN THE FIRST REPLY WAS FILED WITHIN TWO MONTHS OF THE FINAL REJECTION. See MPEP 706.07(f).

Extensions of time may be obtained under 37 CFR 1.136(a). The date on which the petition under 37 CFR 1.136(a) and the appropriate extension fee have been filed is the date for purposes of determining the period of extension and the corresponding amount of the fee. The appropriate extension fee under 37 CFR 1.17(a) is calculated from: (1) the expiration date of the shortened statutory period for reply originally set in the final Office action; or (2) as set forth in (b) above, if checked. Any reply received by the Office later than three months after the mailing date of the final rejection, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

1. ☐ A Notice of Appeal was filed on _____. Appellant's Brief must be filed within the period set forth in 37 CFR 1.192(a), or any extension thereof (37 CFR 1.191(d)), to avoid dismissal of the appeal.

2. ☒ The proposed amendment(s) will not be entered because:

   (a) ☒ they raise new issues that would require further consideration and/or search (see NOTE below);

   (b) ☐ they raise the issue of new matter (see Note below);

   (c) ☒ they are not deemed to place the application in better form for appeal by materially reducing or simplifying the issues for appeal; and/or

   (d) ☐ they present additional claims without canceling a corresponding number of finally rejected claims.

   NOTE: _____.

3. ☐ Applicant's reply has overcome the following rejection(s): _____.

4. ☐ Newly proposed or amended claim(s) _____ would be allowable if submitted in a separate, timely filed amendment canceling the non-allowable claim(s).

5. ☒ The a)☐ affidavit, b)☐ exhibit, or c)☒ request for reconsideration has been considered but does NOT place the application in condition for allowance because: *(See the attachment)*.

6. ☐ The affidavit or exhibit will NOT be considered because it is not directed SOLELY to issues which were newly raised by the Examiner in the final rejection.

7. ☒ For purposes of Appeal, the proposed amendment(s) a)☒ will not be entered or b)☐ will be entered and an explanation of how the new or amended claims would be rejected is provided below or appended.

   The status of the claim(s) is (or will be) as follows:

   Claim(s) allowed: _____.

   Claim(s) objected to: _____.

   Claim(s) rejected: *1,2,5-7,9,10 and 13-23*.

   Claim(s) withdrawn from consideration: _____.

8. ☒ The proposed drawing correction filed on *09 September 2002* is a)☒ approved or b)☐ disapproved by the Examiner.

9. ☐ Note the attached Information Disclosure Statement(s)(PTO-1449) Paper No(s). _____

10. ☐ Other: _____

SUPERVISORY PRIMARY EXAMINER
TECHNOLOGY CENTER 2800

Continuation Sheet (PTO-303) Part of Paper No. 12

Advisory Action

1. The Examiner has given full consideration of the amendment filed on August 13, 2002 in Paper No. 10, after Final Office Action of Paper No. 7. However, the limitations in claim(s) 19-23 are required further search. In the final Office action that was mailed in on June 5, 2002 in Paper No. 7, claim 22 was rejected as being dependent of claim 18. However, applicant has amended claim 22 as independent form and change dependency of claims 19, 21 and 23 form claim 18 to claim 22. Since the scope of claims 19-23 has been changed, due to the new amendment, the newly amended claims require further search and consideration. In addition, there is no convincing showing under 37 CFR 1.116(b) why the proposed amendment is necessary and was not earlier presented.

With respect to the claims objection and rejection, i.e., claims 1, 2, 5-7, 9, 10 and 13 that was set forth under 35 U.S.C. § 132 and 35 U.S.C. § 112 1st Paragraph respectively, applicant's argument was not persuasive to overcome the objection and rejection as that was set forth in Paragraphs 1 and 5 respectively of the Office action of Paper No. 7.

Applicant argues that "*Oxide 330 layer and polysilicon 320 are chemically-mechanically polished with a slurry that ideally has a selectivity of 1:1 (removes oxide layer 330 ant the same rate as polysilicon layer 320* (see page 6, lines 25-29.) Thus, applicant's specification teaches that layers 330 and 320 are polished with one slurry. If layers 330 and 320 are polished with one slurry, then layers 330 and 320 must have been polished without changing the slurry. As a result, applicant's specification indirectly teaches that layers 330 and 320 are polished without changing slurry..."

In response to the applicant's argument, the Examiner respectfully submits that such an argument is not commensurate with the scope of the claims, in particularly, as stated above. Applicant's presumption that the "oxide layer 330 and polysilicon layer 320 are CMP with a slurry *ideally* has selectivity of 1:1" and therefore layers 330 and 320 "must have been polished without changing the slurry" is erroneous and speculative because the specification does not provide any kind of support for the limitation *without changing the slurry* either directly or indirectly. The etch selectivity is determined by the ratio of the etching rate of oxide layer and the polysilicon layer. In order to have an etch selectivity ratio 1:1, it is not necessary both layers have to be etched by same slurry because is obvious to prepare a slurry for the oxide layer has different chemical composition than that of the slurry for polysilicon so that both slurries have same etching rate and have a ration 1:1. Furthermore, there is no evidence in the specification that a single type slurry (i.e., a slurry having same chemical and mechanical composition) has been used to polish both oxide layer 330 and polysilicon layer 320. Therefore, the claims objection and rejection, i.e., claims 1, 2, 5-7, 9, 10 and 13, that was set forth under 35 U.S.C. § 132 and 35 U.S.C. § 112 1st Paragraph respectively is still deemed proper.

Applicant also argues that "the Examiner indicated that applicant's arguments with respect to claims 1, 2, 5-7, 9, 10, 13-23 have been considered but are moot in view of the new ground(s) of rejection. However, the Examiner must address any arguments presented by the applicant which are still relevant to any reference being applied..."

In response to applicant's argument the Examiner respectfully submits that the main part of applicant's argument that was filed on March 25, 2002 in response to the Office action of December 19, 2001 was based on the newly added limitations in the claims, i.e., "polishing the

oxide and polysilicon layers *without changing the slurry.* " In response to the amendment, the Examiner issued a new matter under 35 U.S.C. § 132 and rejection under 35 U.S.C. § 112 1st Paragraph after it was determined that the limitation has raised a new matter which was not part of the specification and the drawings as originally filled. Since the Examiner has no clue how the limitation can be given patentable weight in light of applicant's preemptive argument without providing support for the amendment, the Examiner decided not to argue based on well founded ground. Furthermore, regarding the claims objection and rejection, i.e., claims 1, 2, 5-7, 9, 10 and 13, that was set forth under 35 U.S.C. § 132 and 35 U.S.C. § 112 1st Paragraph respectively, the argument set forth herein above by the Examiner in response to applicant's arguments is adequate. Corresponding rejection under 35 U.S.C. § 112, first paragraph, the burden shifts to the applicant to rebut the *prima facie* showing. *In re Oetiker*, 977 F.2d 1443, 1445, 24 USPQ2d 1443, 1444 (Fed. Cir. 1992) ("The examiner bears the initial burden, on review of the prior art or on any other ground, of presenting a *prima facie* case of unpatentability. If that burden is met, the burden of coming forward with evidence or argument shifts to the applicant. . . After evidence or argument is submitted by the applicant in response, patentability is determined on the totality of the record, by a preponderance of evidence with due consideration to persuasiveness of argument.").

In addition, with respect to claims 18-23, the Examiner does not have to response to applicant's preemptive argument since the claims were added as new claims in the amendment that was filed on March 25, 2002 in Paper No. 6 which the Examiner examined these claims for the first time and issue an Office action that was mailed on June 5, 2002 in Paper No. 7.

With respect to claims rejection of claims 1, 2, 5-7, 10, 13-16 and 18-23 under 35 U.S.C. § 102(e) applicant argued that "it is not possible for a third layer of material to be formed on planarized oxide layer 16 when planarized oxide layer 16 covers the wafer upper level (the top surface of insulative layer 14). Thus, since Li does not teach that a third layer of material formed over polysilicon layer 16 while polysilicon layer 16 covers the top surface of insulative regions 14, claim 22 is not anticipated by Li...."

In response to the applicant's argument, the Examiner respectfully submits that such an argument is not commensurate with the scope of the claims, in particularly, as stated above. Before responding to the subject matter applicant's argument, it is noted that applicant refers both oxide layer and polysilicon layer as layer 16 and this is confusing. In any event, the Examiner would like clarify the matter as follows: as shown in Fig. 2A of Li et al. '368 reference, the oxide layer (i.e., the second layer of material) should refer to as layer 18 and the polysilicon layer (i.e., the first layer of material) should refer to as layer 16. Turning back to applicant's argument, the Examiner respectfully submits that Li et al. '368 disclose all the claimed limitations including the limitation forming of a third layer of material formed over the planarized layer of the first material (see Fig. 2D). However, the applicant just pointed out Fig. 2E, which is one of the embodiment of Li et al.'s '368 reference, and tend to argue that "it is not possible for a third layer of material to be formed on planarized oxide layer 16 when planarized oxide layer 16 covers the wafer upper level (the top surface of insulative layer 14)" whereas applicant choose to ignore Fig. 2D. In addition, the process steps of claims 18-23 of the instant applicant follows the drawing of Figs. 3A – 3C of the instant application. Similarly, Li et al. '368 disclose all the claimed limitations, as applied in Paragraph 12 of Office action June 5, 2002 in

Paper No. 7. In any case, the Examiner respectfully submits that Li et al.'s '368 disclose all the claimed limitations as applied in the Office action that was mailed on June 5, 2002.

Finally, on cursory consideration, the request for reconsideration does not clearly appear to overcome the rejections because the argument and amendment neither persuasive to overcome the Final Rejection that was mailed on June 5, 2002 nor place the application in better condition for appeal.

Correspondence

2. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Brook Kebede whose telephone number is (703) 306-4511. The examiner can normally be reached on 8-5 Monday to Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Wael Fahmy can be reached on (703) 308-4918. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 308-7722 for regular communications and (703) 308-7722 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0956.

Brook Kebede
BK
October 15, 2002